

REMARKS

The Office action dated November 7, 2005, has been carefully reviewed and the foregoing amendment has been made in response thereto.

The disclosure is objected to the use of reference numbers 27 and 28 at page six, paragraph 23. The basis for this objection has been corrected in the amendments to the specification (Paragraph 0023) presented in the Preliminary Amendment, filed January 13, 2004,.

Claims 6 and 16 stand rejected under 35 U.S.C. 112, second paragraph. The basis for these rejections have been overcome by removing "-type" from Claims 6 and 16.

Claims 1-24 stand rejected under 35 U.S.C. 103(a) as unpatentable over Bober (U.S. patent 3,944,446) in view of Yoshida et al (U.S. Patent 6,390,924). The Office action states that Bober teaches use of a cylindrical multi-turn inductor, which would suggest the semi-cylindrical lateral, lower and upper coil recited by Claim 1. The '446 patent neither discloses nor suggests that the workpiece, an engine cam shaft, includes an upper section, a lateral section, and a lower section. Furthermore, the '466 patent neither discloses nor suggests an induction coil as defined in the selection step of the method of Claims 1 and 16, as amended. Claims 1 and 16 have been amended to more specifically distinguish the induction heat treating method from the prior art references. Specifically, Claim 1 and 16 has been amended to recite that the induction coil produces, when energized, a magnetic field whose centerline is non-planar. These features are disclosed, illustrated, and described with reference to Figures 1 and 2 at Paragraph 0029, as previously amended.

The induction coil illustrated in Figure 1 of the '446 patent produces a uniform field providing the heat conductor that entirely surrounds the entire outer surface of the work piece from one longitudinally end to the opposite longitudinal end. The centerline of the magnetic field is planar and coincides with axis x. No portion of the inductor surrounds only a portion of the work piece. There are no nonlinear,

joggled components of the inductor, such as would cause the centerline of the magnetic field from being planar.

Yoshida has been cited for disclosing a Rzeppa constant velocity joint. Claim 16 which is specifically directed to a Rzeppa constant velocity joint as the workpiece. Nonetheless, the magnetic field of Bober, when combined with the Rzeppa joint, has a planar centerline--no upper coil portion, no lateral coil portion, and a no lower coil portion.

In view of the foregoing amendment and remarks, claims 1-24 are now in condition for allowance. Favorable action is respectfully solicited.

Respectfully submitted,



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